

LOW-MASS ROLLER OR PULLEY

ABSTRACT OF THE DISCLOSURE

A low-mass roller is disclosed comprising a cylindrical body formed of polymeric material and having an exterior surface, first and second open ends and defining an interior tubular space along a longitudinal axis therethrough for receiving an axle; and an outer shell formed of thin metal covering the exterior surface of the cylindrical body. In another aspect, the outer shell of the low-mass roller comprises an assembly of first and second tubular shells having inside diameters, equal within a predetermined tolerance, at first respective ends thereof, wherein the first respective ends are joined together and welded. The assembly of the first and second tubular shells includes a weld ring disposed between and nested within the first respective ends of the first and second tubular shells such that the shells are held together in alignment during the welding process.